

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Okumura, et al. Confirmation: Not Yet Assigned
U.S.S.N.: Not Yet Assigned Art Unit: Not Yet Assigned
FILED: Herewith Examiner: Not Yet Assigned
FOR: ADAPTIVE WAVEFORM EQUALIZATION FOR VITERBI-DECODABLE SIGNAL
AND SIGNAL QUALITY EVALUATION OF VITERBI-DECODABLE SIGNAL

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service, in an envelope as "Express Mail Label No. EV 343731589 US addressed to Mail Stop Patent Application, the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 22, 2003.

By: 
Helen Murray Tarbi

INFORMATION DISCLOSURE STATEMENT
(SUBMISSION WITH FILING OF AN APPLICATION)

Sir/Madame:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications or other information submitted for consideration by the Office are listed on PTO-1449, attached hereto.

II. COPIES

a. Submitted herewith is a legible copy of (i) each U.S and foreign patent; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.

b. Each of the patents, publications or other information listed on the attached PTO-1449 was previously cited by or submitted to the USPTO in connection with U.S.S.N. _____, to which the subject application claims the benefit of the earlier filing date. As such, a copy of each is not included herewith pursuant to 37 C.F.R. § 1.98(d).

III. CONCISE EXPLANATION OF THE RELEVANCE

(check at least one box)

a. Except as may be indicated below in (b), all of the patents, publications or other information are in the English language or were cited in an English language Search Report, a copy of which is attached hereto (concise explanation not required).

b. A concise explanation of the relevance of all patents, publications or other information listed that is not in the English language is as follows/ were previously submitted to the USPTO in the case where II.b is checked above:

English translation (partial) for reference **C1**.
 English abstract for references **B1**.
 English translation of search report/ official communication.
 Copy of PCT/EPO Search Report.

c. The following additional information is provided for the Examiner's consideration:

Copy of EPO Search Report.
 Copy of PCT Search Report.
 Copy of Official Communication from the _____ Patent Office.
 English translation of search report/ official communication.
 Copy of _____.

FEES

IV. THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(b)
(check one box)

a. within three months of the filing date of a national application (37 C.F.R. § 1.97(b) (1)). No fee or certification is required.

Attorney Docket No. 59626 (70904)

b. _____ within three months of the date of entry of the national stage as set forth in §1.491 in an international application (37 C.F.R. § 1.97(b) (2)). No fee or certification is required.

c. _____ before the mailing date of a first Action on the merits (37 C.F.R. § 1.97(b) (3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e)below, or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

V. THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(c):
(check one box)

before the mailing date of a Final Office Action under 37 C.F.R. § 1.113 (See 37 C.F.R. § 1.97(c) (1)) or before the mailing date of a Notice of Allowance under 37 C.F.R. § 1.311 (See 37 C.F.R. § 1.97(c) (2)).

a. _____ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).
or
b. _____ See the certification below. No fee is required.

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e) (check only one box)

The undersigned hereby certifies that

a. _____ each item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS; or

b. _____ no item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application or, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement.

c. _____ Some of the items of information were cited in a communication from a foreign Patent Office. As to this information, the undersigned certifies that each item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart

Attorney Docket No. 59626 (70904)

in a communication from a foreign Patent Office in a counterpart foreign application or, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement.

VII. FEE PAYMENT (check one)

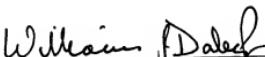
Enclosed please find a check in the amount of \$180.00 for the above-indicated fee.

Please charge Deposit Account No. 04-1105 in the amount of \$180.00 for the above-indicated fee.

No fee is required.

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule, with a petition if necessary, and charge the appropriate fee to Deposit Account No. 04-1105.

Respectfully submitted,



William J. Daley, Jr. (Reg. No. 35,487)

Edwards & Angell, LLP

P.O. Box 9169

Boston, MA 02209

Tel: (617) 439-4444

Date: July 22, 2003



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PATENT TRADEMARK OFFICE

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT		DOCKET NO: 59626 (70904)		SERIAL NO.: Not yet assigned		
		APPLICANT: Okumura, et al.				
		FILING DATE: Herewith		GROUP NO. Not yet assigned		
		UNITED STATES PATENT DOCUMENTS				
EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A1 5,938,791	8/17/1999	Narahara			
	A2 US 2003/0043939 A1	3/6/2003	Okumura et al.			
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO
	B1 2000-156041	6/6/2000	Japan			
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)						
C1	Haykin, "Adaptive Filter Theory", Gendai Kougaku-sha (Modern Engineering Inc.), 1 st Ed., September 10, 1987; 4 th Ed. July 1, 1999; pp. 9-11, 91-111.					
C2	Perkins, et al., "A Window-Margin-Like Procedure for Evaluating PRML Channel Performance", IEEE Transactions on Magnetics, Vol. 31, No. 2, March 1995; pp. 1109-1114.					
C3	Okumura, et al., "New adaptive equalization method for PRML system using sequenced amplitude margin", Optical Society of America SPIE IEEE/LEOS, May 11-14, 2003; pp. 96-98.					
C4	Okumura, et al., "A Method for Evaluating PRML System Reliability Using Sequenced Amplitude Margin", International Symposium On Optical Memory 2001, October 16-19, 2001; pp. 272-273.					
EXAMINER:				DATE:		